



**Jet Propulsion Laboratory**  
California Institute of Technology  
4800 Oak Grove Drive  
Pasadena, CA 91109-8099

May 10, 2001

Attention: All Prospective Proposers

Subject: Amended Request for Proposal (RFP) No. JPL-MAV-2001 for the Mars Ascent Vehicle (MAV) Concept Study

The Request for Proposal for the Mars Ascent Vehicle (MAV) Concept Study can be found on JPL's Acquisition Division Home Page at <http://acquisition.jpl.nasa.gov/rfp/mav>. The Jet Propulsion Laboratory (JPL) invites your organization to submit a proposal in conformance with the instructions contained therein.

The NASA Mars Exploration Program is planning an integrated series of science and technology demonstration missions, culminating in the launch of the Mars Sample Return (MSR) mission in 2011. Orbiter missions launching in 2001, 2005 and 2007 provide opportunities to select and characterize sample collection sites and to demonstrate capabilities that may be needed for MSR. Recent workshops and studies have identified a broad spectrum of options for implementation of the MSR mission. One aspect of this mission is the Mars Ascent Vehicle (MAV) that will lift samples from the surface of Mars for transportation to Earth. The Mars Exploration Program, with this RFP, seeks to develop sufficient understanding of the feasibility and cost of a variety of MAV strategies, concentrating on liquid, solid, gel, and hybrid (liquid/solid) propulsion.

Sample return will enable a greater understanding of Mars than is possible with remote sensing and in situ investigations. Analyses of returned samples will contribute toward the program's goal of understanding such things as whether life existed on Mars, the past and present climate of the planet, the nature of the interior and surface of the planet, and the character of the Martian environment. In particular, how these aspects influence future human exploration. The MAV will carry samples of rock and soil from the Martian surface. The samples will be carried in a package called the Sample Canister (SC). While attached to the MAV, the SC is part of the MAV payload.

This RFP is for an examination of a wide range of MAV strategies. These studies are not to be constrained by previous MAV strategies. JPL plans to award approximately three Fixed Price R & D study contracts valued at \$300,000 each. The contracts will be awarded via the JPL competitive source evaluation and source selection process. Potential offerors are strongly encouraged to form teams including academic and industrial partners. It should be noted that successful proposers on this effort may not assume follow-up funding in future years.

Note that this is a competitive procurement subject to the "Late Proposal" provisions of the RFP General Instructions. Proposals are to be received no later than 3:00 p.m. local time on June 6, 2001.

As a courtesy to JPL, you are requested to provide to the undersigned, no later than June 1, 2001, a written statement indicating whether or not your organization intends to submit a proposal. If you have already submitted such a statement, a resubmission is not necessary, unless there has been a change. Should the choice be not to propose, please include a brief statement addressing the reasons for your decision not to propose.

All questions and correspondence related to this procurement shall be directed only to the undersigned.

Very truly yours,

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